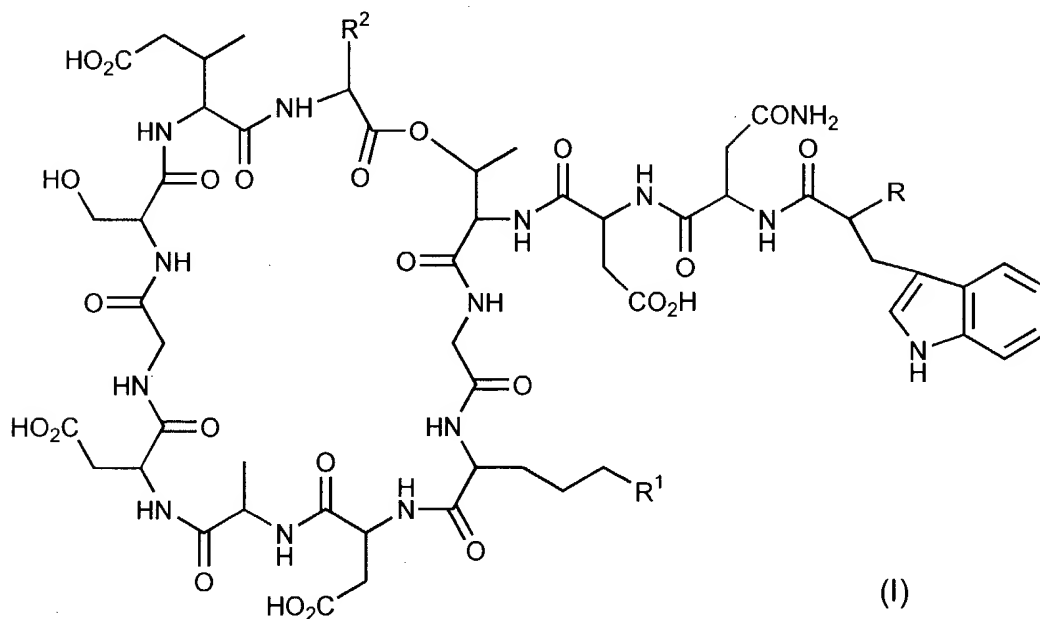


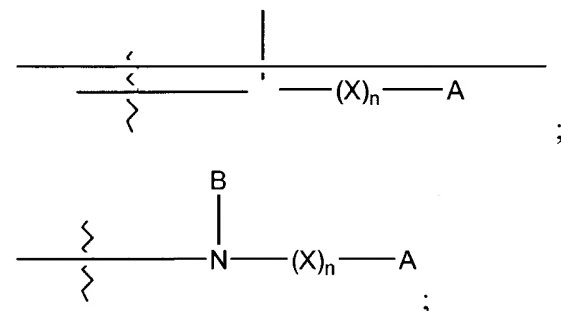
## AMENDMENTS TO THE CLAIMS

1. (Currently amended) A compound having the formula (I):



and salts thereof;

wherein R is:



wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR<sup>X</sup>, S=O or SO<sub>2</sub>;

wherein n is 1;

wherein R<sup>x</sup> is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

wherein B is  $X^mR^Y$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; and

wherein R<sup>Y</sup> is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

wherein A is H, NH<sub>2</sub>, NHR<sup>A</sup>, NR<sup>A</sup>R<sup>B</sup>, heteroaryl, cycloalkyl or heterocyclyl;

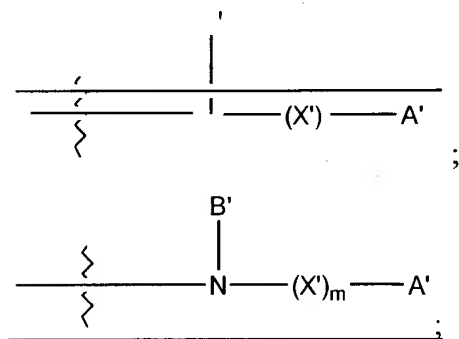
wherein R<sup>A</sup> and R<sup>B</sup> are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;

provided that when B is H and X is C=O, then A is other than

(a) a pyridinyl ring substituted with a single  $\text{NHC(O)R}^{\text{D}}$  substituent or

(b) a (C<sub>5</sub>-C<sub>6</sub>) saturated cycloalkyl ring substituted with a single NHC(O)R<sup>D</sup> substituent, wherein R<sup>D</sup> is (C<sub>1</sub>-C<sub>17</sub>) unsubstituted alkyl or (C<sub>2</sub>-C<sub>17</sub>) unsubstituted alkenyl;

wherein  $R^1$  is



wherein X' and X''' are independently selected from C=O, C=S, C=NH,

$C=NR^X$ ,  $S=O$  or  $SO_2$ ;

wherein  $m$  is 0 or 1;

wherein  $R^X$  is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

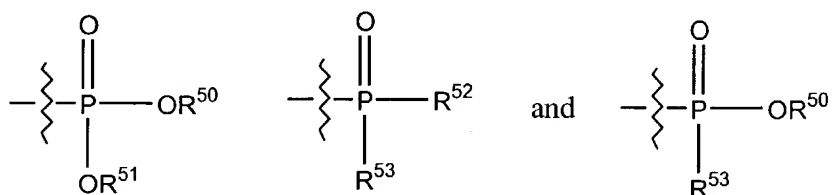
wherein  $B'$  is  $X'''R^Y$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl;

wherein  $R^Y$  is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

wherein  $A'$  is H,  $NH_2$ ,  $NHR^{A'}$ ,  $NR^{A'}R^{B'}$ , alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;

wherein  $R^{A'}$  and  $R^{B'}$  are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;

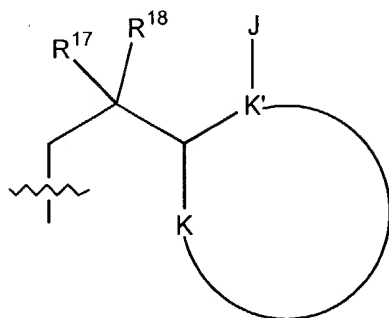
wherein when  $m$  is 0, then  $A'$  is additionally selected from the group consisting of:



wherein each of  $R^{50}$ - $R^{53}$  is independently selected from  $C_1$ - $C_{15}$  alkyl;

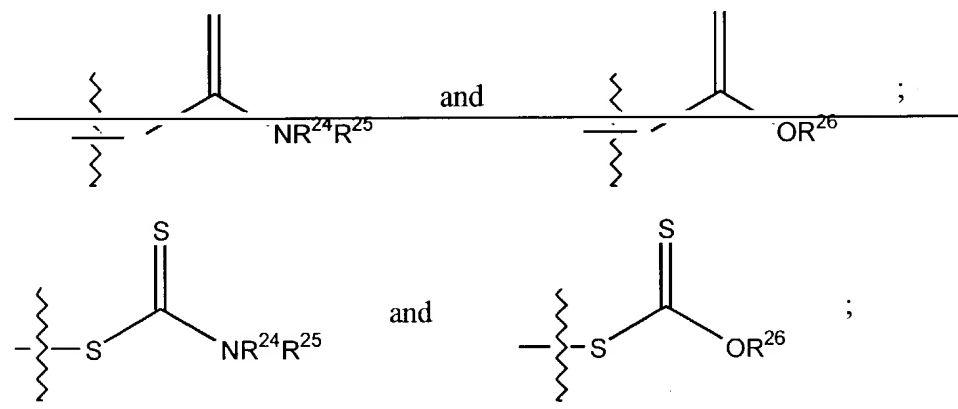
alternatively, wherein  $B'$  and  $A'$  together form a 5-7 membered heterocyclic or heteroaryl ring;

wherein  $R^2$  is



wherein K and K' together form a C<sub>3</sub>-C<sub>7</sub> cycloalkyl or heterocyclyl ring or a C<sub>5</sub>-C<sub>10</sub> aryl or heteroaryl ring;

wherein J is selected from the group consisting of hydrido, amino, NHR<sup>J</sup>, NR<sup>J</sup>R<sup>K</sup>, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo,



wherein each of R<sup>24</sup>, R<sup>25</sup>, and R<sup>26</sup> is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl; or R<sup>24</sup> and R<sup>25</sup> together form a 5-8 membered heterocyclyl ring;

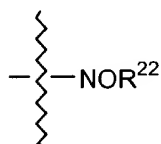
wherein R<sup>J</sup> and R<sup>K</sup> are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or

alternatively, wherein J, together with R<sup>17</sup>, forms a 5-8 membered

heterocyclyl or cycloalkyl ring; or

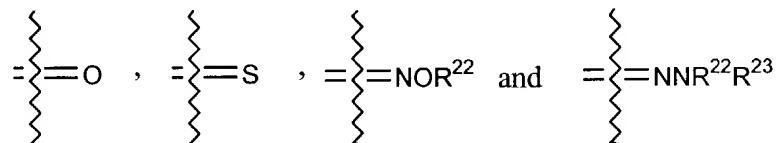
alternatively, wherein J, together with both R<sup>17</sup> and R<sup>18</sup>, forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of R<sup>17</sup> and R<sup>18</sup> is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and



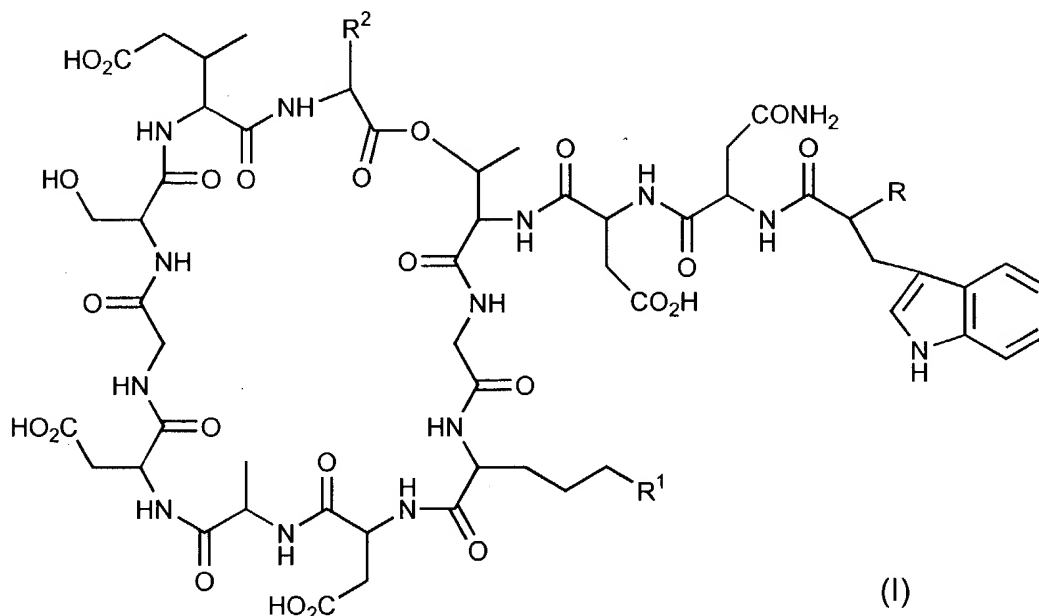
; or

wherein R<sup>17</sup> and R<sup>18</sup> taken together can form a group consisting of ketal, thioketal,



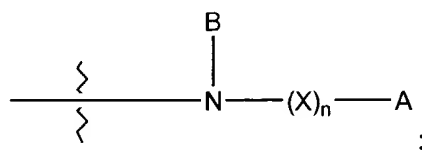
wherein each of R<sup>22</sup> and R<sup>23</sup> is independently selected from the group consisting of hydrido and alkyl.

2. (Currently amended) A compound having the formula (I):



and salts thereof;

wherein R is:



wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR<sup>X</sup>, S=O or SO<sub>2</sub>;

wherein n is 1;

wherein R<sup>X</sup> is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

wherein B is X"R<sup>Y</sup>, H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; and

wherein R<sup>Y</sup> is selected from hydrido, alkyl, alkenyl, alkynyl, aryl,

heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

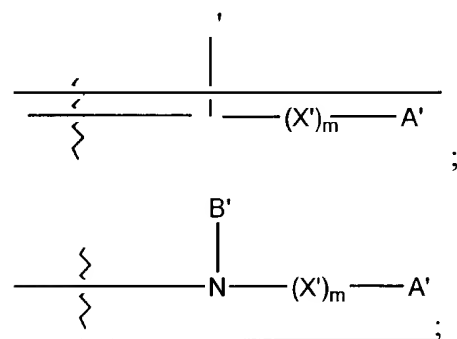
wherein A is aryl;

provided that when B is H and X is C=O, then A is other than a phenyl ring substituted with either:

(a)  $-O-((C_8-C_{15})$  unsubstituted alkyl), wherein said phenyl ring may be further optionally substituted with one substituent selected from halo, nitro,  $(C_1-C_3)$  alkyl, hydroxyl,  $(C_1-C_3)$  alkoxy or  $(C_1-C_3)$  alkylthio; or

(b)  $-\text{NHC(O)}\text{R}^{\text{D}}$ , wherein the phenyl ring may be further optionally substituted with 1-2 substituents independently selected from amino, nitro,  $(\text{C}_1\text{-C}_3)$  alkyl, hydroxyl,  $(\text{C}_1\text{-C}_3)$  alkoxy, halo, mercapto,  $(\text{C}_1\text{-C}_3)$  alkylthio, carbamyl or  $(\text{C}_1\text{-C}_3)$  alkylcarbamyl, wherein  $\text{R}^{\text{D}}$  is  $(\text{C}_1\text{-C}_{17})$  unsubstituted alkyl or  $(\text{C}_2\text{-C}_{17})$  unsubstituted alkenyl;

wherein  $R^1$  is



wherein X' and X''' are independently selected from C=O, C=S, C=NH, C=NR<sup>X'</sup>, S=O or SO<sub>2</sub>;

wherein  $m$  is 0 or 1;

wherein R<sup>X</sup> is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

wherein B' is X<sup>m</sup>R<sup>y'</sup>, H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl

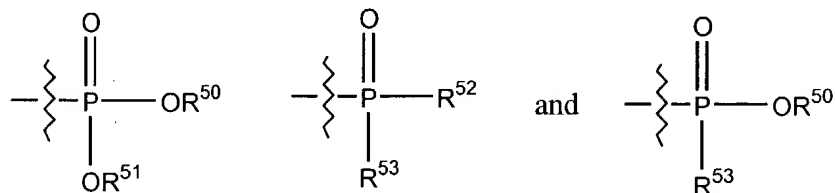
or heterocyclyl;

wherein  $R^{Y'}$  is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

wherein  $A'$  is H,  $NH_2$ ,  $NHR^{A'}$ ,  $NR^{A'}R^{B'}$ , alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;

wherein  $R^{A'}$  and  $R^{B'}$  are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;

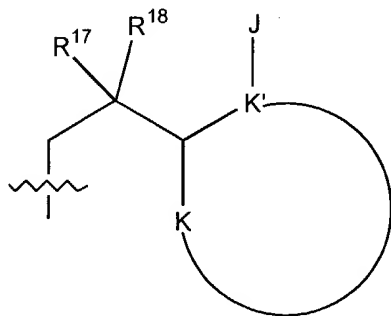
wherein when m is 0, then  $A'$  is additionally selected from the group consisting of:



wherein each of  $R^{50}$ - $R^{53}$  is independently selected from  $C_1$ - $C_{15}$  alkyl;

alternatively, wherein  $B'$  and  $A'$  together form a 5-7 membered heterocyclic or heteroaryl ring;

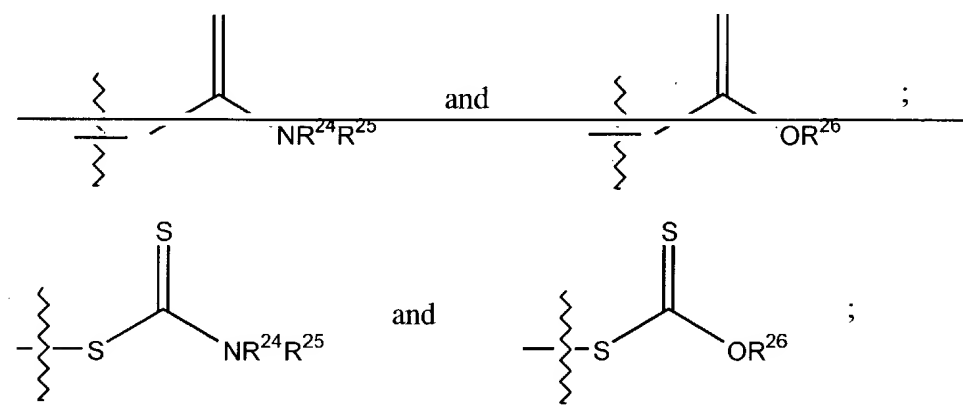
wherein  $R^2$  is



wherein  $K$  and  $K'$  together form a  $C_3$ - $C_7$  cycloalkyl or heterocyclyl ring or a  $C_5$ - $C_{10}$  aryl or heteroaryl ring;



wherein J is selected from the group consisting of hydrido, amino,  $\text{NHR}^J$ ,  $\text{NR}^J\text{R}^K$ , alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo,



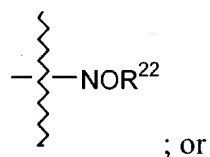
wherein each of  $\text{R}^{24}$ ,  $\text{R}^{25}$ , and  $\text{R}^{26}$  is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl; or  $\text{R}^{24}$  and  $\text{R}^{25}$  together form a 5-8 membered heterocyclyl ring;

wherein  $\text{R}^J$  and  $\text{R}^K$  are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or

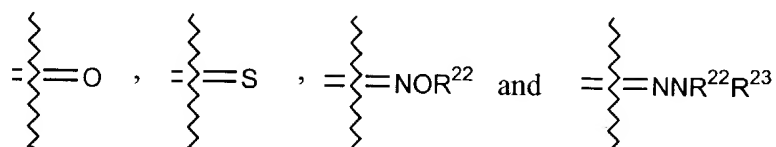
alternatively, wherein J, together with  $\text{R}^{17}$ , forms a 5-8 membered heterocyclyl or cycloalkyl ring; or

alternatively, wherein J, together with both  $\text{R}^{17}$  and  $\text{R}^{18}$ , forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of  $\text{R}^{17}$  and  $\text{R}^{18}$  is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and



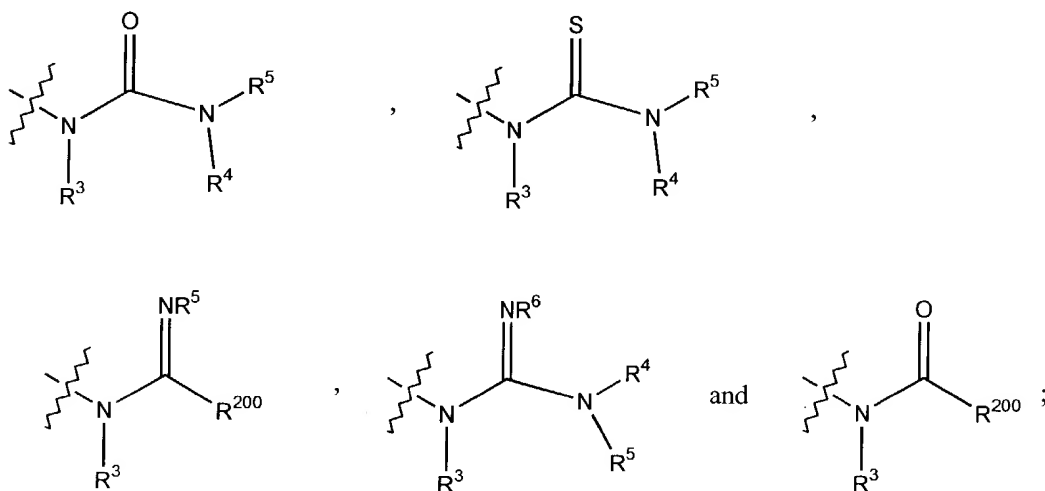
wherein  $R^{17}$  and  $R^{18}$  taken together can form a group consisting of ketal, thioketal,



wherein each of  $R^{22}$  and  $R^{23}$  is independently selected from the group consisting of hydrido and alkyl.

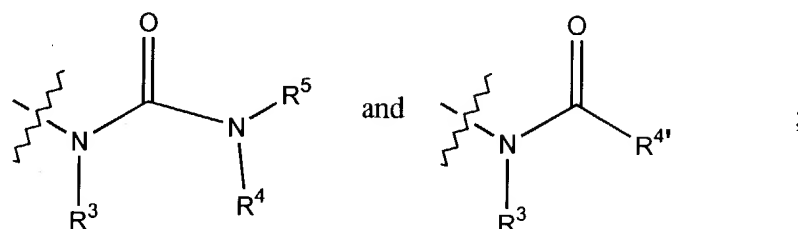
Claims 3-4 (Canceled)

5. (Previously presented) The compound according to claim 1, wherein R is selected from the group consisting of:



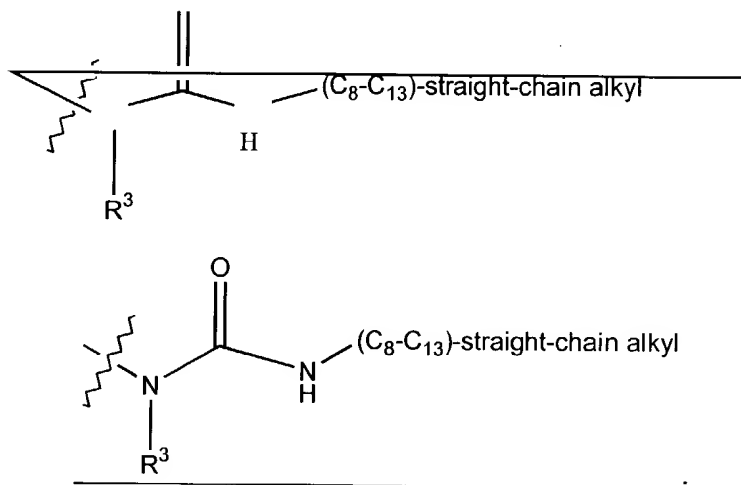
wherein each of  $R^3$ ,  $R^4$ ,  $R^5$ , and  $R^6$  is independently selected from the group consisting of hydrido, alkyl, aryl, heterocyclyl and heteroaryl, and wherein  $R^{200}$  is selected from the group consisting of hydrido, heterocyclyl, and heteroaryl.

6. (Previously presented) The compound according to claim 5, wherein R is selected from

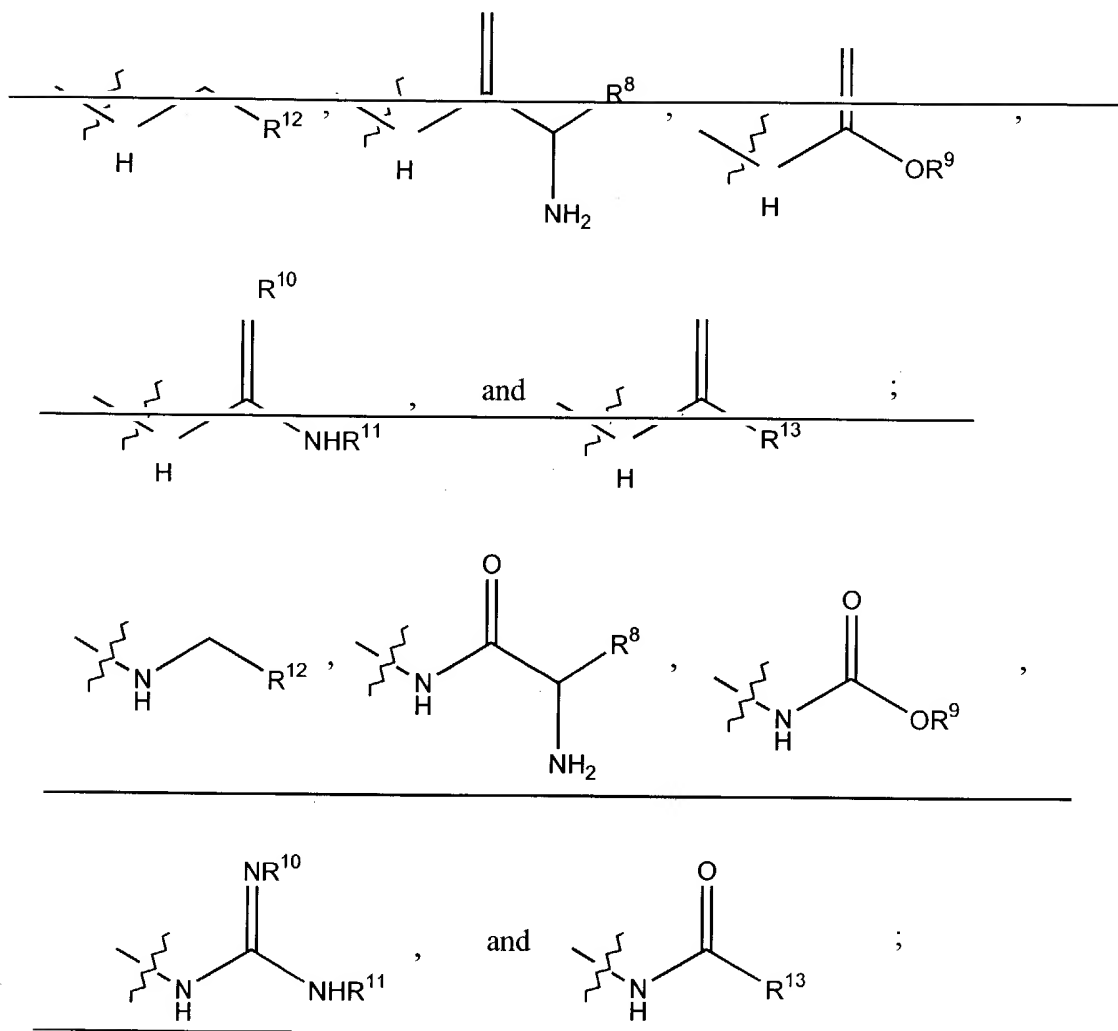


and wherein R<sup>4'</sup> is selected from the group consisting of heteroaryl, and heterocyclyl.

7. (Currently amended) The compound according to claim 6, wherein R is



8. (Currently amended) The compound according to either of claims 1 or 2, wherein R<sup>1</sup> is selected from the group consisting of:

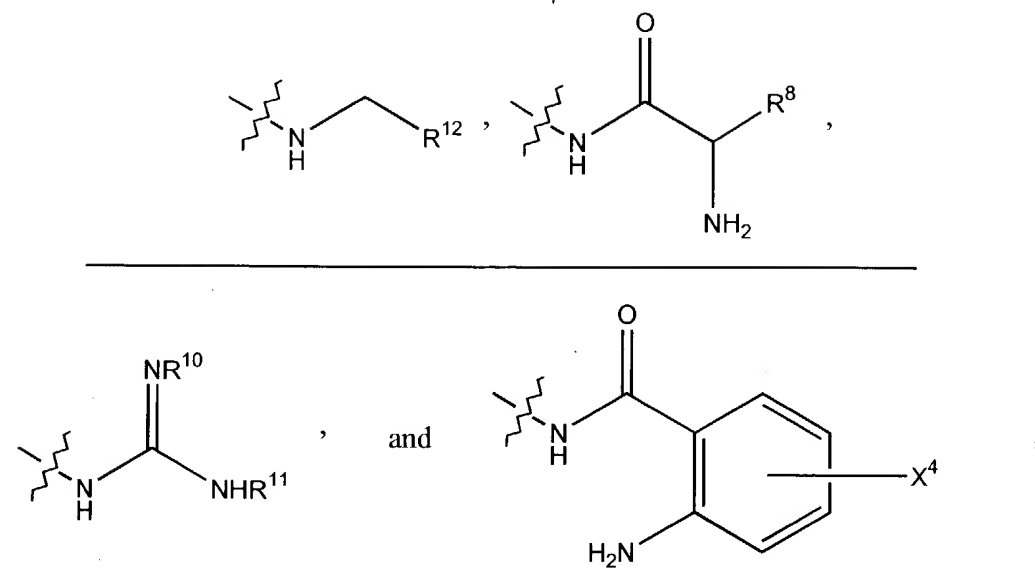


wherein  $R^8$  is selected from a natural amino acid side chain or an amino acid side chain that is not naturally occurring;

wherein each of  $R^9$ ,  $R^{10}$  and  $R^{11}$  is selected from the group consisting of hydrido, alkyl, aryl, heterocyclyl and heteroaryl;

wherein  $R^{12}$  is selected from the group consisting of heterocyclyl,





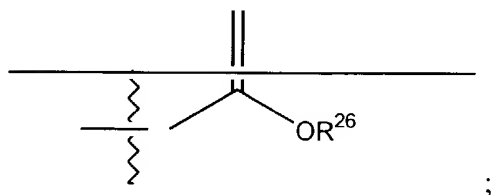
wherein  $\text{R}^8$  is selected from tryptophan side chain and lysine side chain;

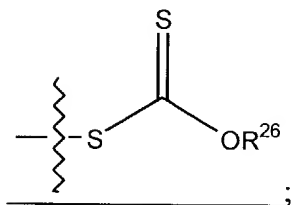
wherein each of  $\text{R}^{10}$  and  $\text{R}^{11}$  is independently selected from hydrido and alkyl;

wherein  $\text{R}^{12}$  is selected from imidazolyl, N-methylimidazolyl, indolyl, quinolinyl, benzyloxybenzyl, and benzylpiperidenylbenzyl; and

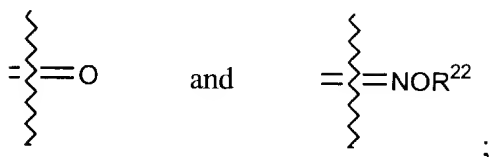
wherein  $\text{X}^4$  is fluoro, or trifluoromethyl.

10. (Currently amended) The compound according to either of claims 1 or 2, wherein J is selected from the group consisting of hydrido, amino, azido and





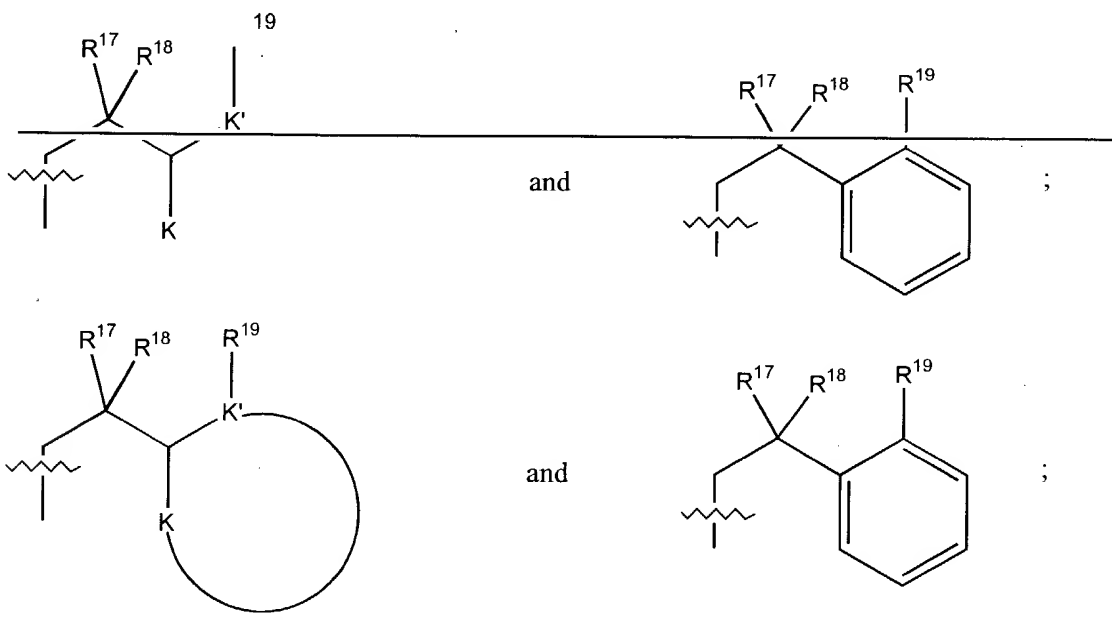
wherein  $R^{17}$  and  $R^{18}$  taken together form a group selected from ketal,



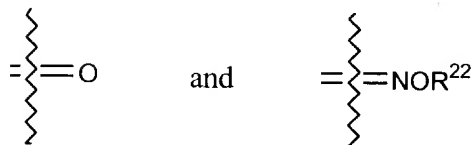
or wherein  $R^{17}$  is hydroxyl when  $R^{18}$  is hydrido;

or wherein J, together with  $R^{17}$ , forms a heterocyclyl ring.

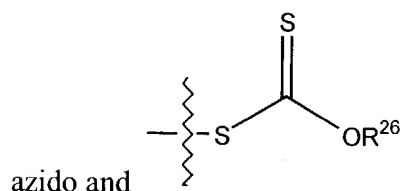
11. (Currently amended) The compound according to claim 10, wherein  $R^2$  is selected from the group consisting of



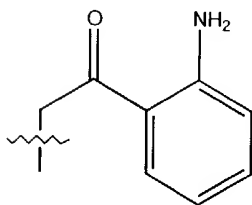
wherein  $R^{17}$  and  $R^{18}$  taken together form a group selected from



, wherein  $R^{22}$  is selected from the group consisting of H and alkyl; and wherein  $R^{19}$  is selected from the group consisting of hydrido, amino,



12. (Original) The compound according to claim 11, wherein  $R^2$  is



Claims 13-14 (Canceled)

15. (Previously presented) A pharmaceutical composition comprising the compound according to either of claims 1 or 2 and a pharmaceutically acceptable carrier.

16. (Currently amended) A method of treating a bacterial infection in a subject, comprising the step of administering a therapeutically-effective amount of the pharmaceutical composition according to claim 15 to a subject in need thereof for a time and under conditions effective to ~~control or eliminate~~ ameliorate said bacterial infection.



17. (Previously presented) The method according to claim 16, wherein said subject is selected from the group consisting of a human, an animal, a cell culture and a plant.

18. (Original) The method according to claim 16, wherein said bacterial infection is caused by a gram-positive bacteria.

19. (Original) The method according to claim 18, wherein said bacteria is an antibiotic-resistant bacteria.

20. (Original) The method according to claim 19, wherein said antibiotic-resistant bacteria are resistant to an antibiotic selected from the group consisting of vancomycin, methicillin, glycopeptide antibiotics, penicillin and daptomycin.

21. (Original) The method according to claim 16, further comprising the step of co-administering more than one compound of Formula (I) to a subject in need thereof.

22. (Original) The method according to claim 16, further comprising the step of co-administering an antimicrobial agent other than a compound of Formula (I) to a subject in need thereof.

23. (Currently amended) The method according to claim 22, wherein said antimicrobial agent is selected from the group consisting of penicillins, carbapenems, cephalosporins, aminoglycosides, bacitracin, gramicidin, mupirocin, chloramphenicol,

thiamphenicol, fusidate sodium, lincomycin, clindamycin, macrolides, novobiocin, polymyxins, rifamycins, spectinomycin, tetracyclines, vancomycin, teicoplanin, streptogramins, anti-folate agents, trimethoprim, pyrimethamine, synthetic antibacterials, nitroimidazoles, quinolones, fluoroquinolones, isoniazid, ethambutol, pyrazinamide, para-aminosalicylic acid (PAS), cycloserine, capreomycin, ethionamide, prothionamide, thiacetazone, viomycin, everninomicin, glycopeptide, glycylcycline, ketolides, oxazolidinones, imipenen, amikacin, netilmicin, fosfomycin, gentamicin, ceftriaxone, Zircin (56-deacetyl-57-demethyl-45-O-de(2-methyl-1-oxopropyl)-12-O-(2,3,6-trideoxy-3-C-methyl-4-O-methyl-3-nitro- $\alpha$ -L-arabino-hexopyranosyl)flambamycin), LY333328 (oritavancin), Linezolid (N-[[[(5S)-3-[3-fluoro-4-(4-morpholinyl) phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide), Synercid (dalbapristin-quinupristin), Aztreonam (2-[[[(Z)-[1-(2-amino-4-thiazolyl)-2-[[[(2S,3S)-2-methyl-4-oxo-1-sulfo-3-azetidiny] amino]-2-oxoethylidene]amino]oxy]-2-methyl-propanoic acid), Metronidazole (2-methyl-5-nitro-1H-imidazole-1-ethanol), Epiroprim (5-[[[3,5-diethoxy-4-(1H-pyrrol-1-yl)phenyl]methyl]-2,4-pyrimidinediamine), OCA-983 (1-[[[(2S)-2-amino-3-methyl-1-oxobutyl]amino]-2,5-anhydro-3-S-[(4R,5S,6S)-2-carboxy-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-en-3-yl]-1,4-dideoxy-3-thio-D-threo-pentitol), GV-143253 (trinem), Sanfetrinem ((1S, 5S, 8aS, 8bR)-1, 2, 5, 6, 7, 8, 8a, 8b-octahydro-1-[[[(1R)-1-hydroxyethyl]-5-methoxy-2-oxo-azeto[2,1-a]isoindole-4-carboxylic acid), CS-834 ((4R, 5S, 6S)-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-3-[[[(3R)-5-oxo-3-pyrrolidinyl]thio]-1-azabicyclo [3.2.0]hept-2-ene-2-carboxylic acid (2,2-dimethyl-1-oxopropoxy)methyl ester), Biapenem (6-[[[(4R,5S,6S)-2-carboxy-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-en-3-yl]thio]-6, 7-dihydro-5H-pyrazolo[1,2-a][1,2,4]triazol-4-ium inner salt), KA 159 (stipiamide), Dynemicin A ((1S,4R,4aR,14S,14aS,18Z)-1,4,7,12,13, 14-hexahydro-6,8,11-trihydroxy-3-methoxy-1-

methyl-7,12-dioxo-4a,14a-epoxy-4,14-[3]hexene[1,5]diynonaphtho[2,3-c]phenanthridine-2-carboxylic acid), DX8739 ((4R,5S,6S)-3-[[[(3S,5S)-5-[[4-[(2S)-5-amino-2-hydroxy-1-oxopentyl]-1-piperazinyl]carbonyl]-3-pyrrolidinyl]thio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid), DU 6681 ((4R,5S,6S)-3-[[[(6S)-6,7-dihydro-5H-pyrrolo[1,2-a]imidazol-6-yl]thio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0] hept-2-ene-2-carboxylic acid), Cefluprenam ((2E)-N-(2-amino-2-oxoethyl)-3-[(6R,7R)-7-[[[(2Z)-(5-amino-1,2,4-thiadiazol-3-yl)](fluoro methoxy)imino]acetyl] amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]-N-ethyl-N-methyl-2-propen-1-aminium inner salt), ER 35786 ((4R,5S,6S)-6-[(1R)-1-hydroxyethyl]-3-[[[(3S,5S)-5-[(R)-hydroxy(3R)-3-pyrrolidinylmethyl]-3-pyrrolidinyl]thio]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid monohydrochloride), Cefoselis ((6R,7R)-7-[[[(2Z)-(2-amino-4-thiazolyl)(methoxy imino)acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid), Sanfetrinem celexetil ((1S,5S,8aS,8bR)-1,2,5,6,7,8,8a,8b-octahydro-1-[(1R)-1-hydroxyethyl]-5-methoxy-2-oxo-azeto[2,1-a]isoindole-4-carboxylic acid 1-[(cyclohexyloxy)carbonyl]oxy]ethyl ester), Cefpirome (1-[[[(6R,7R)-7-[[[(2Z)-(2-amino-4-thiazolyl)(methoxyimino)acetyl] amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6,7-dihydro-5H-cyclopenta[b]pyridinium inner salt), HMR-3647 (3-de[(2,6-dideoxy-3-C-methyl-3-O-methyl-alpha-L-ribo-hexopyranosyl)oxy]-11,12-dideoxy-6-O-methyl-3-oxo-12,11-[oxycarbonyl[[4-[4-(3-pyridinyl)-1H-imidazol-1-yl]butyl]imino]]-erythromycin), RU-59863 (C-7 catechol substituted cephalosporin), KP 736 ((6R,7R)- 7-[[[(2Z)-(2-amino-4-thiazolyl)][(1,4-dihydro-1,5-dihydroxy-4-oxo-2-pyridinyl)methoxy] imino]acetyl]amino]-8-oxo-3-[(1,2,3-thiadiazol-5-ylthio)methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid disodium salt), Rifalazil (1',4-

didehydro-1-deoxy-1,4-dihydro-3'-hydroxy-5'-[4-(2-methylpropyl)-1-piperazinyl]-1-oxo-  
 rifamycin VIII), MEN 10700 ((5R,6S)-3-[[2-amino-2-oxoethyl)methylamino]methyl]-6-  
 [(1R)-1-hydroxyethyl]-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid),  
 Lenapenem ((4R,5S,6S)-6-[(1R)-1-hydroxyethyl]-3-[[3S,5S)-5-[(1R)-1-hydroxy-3-  
 (methylamino)propyl]-3-pyrrolidinyl]thio]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-  
 ene-2-carboxylic acid), BO 2502A ((4R,5S,6S)-3-[(2S,3'S,4S)-[2,3'-bipyrrolidin]-4-  
 ylthio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-  
 carboxylic acid), NE-1530 (3'-sialyllacto-N-neotetraose), PR 39 (L-arginyl-L-arginyl-L-  
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 K130 (5-[[4-[3-[[4-[(4-aminophenyl)sulfonyl]phenyl]amino]propoxy]-3,5-  
 dimethoxyphenyl] methyl]-2,4-pyrimidinediamine), PD 138312 ((R)- 7-[3-(1-amino-1-  
 methylethyl)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-1,8-  
 naphthyridine-3-carboxylic acid), PD 140248 (7-[(3R)-3-[(1S)-1-aminoethyl]-1-  
 pyrrolidinyl]-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-  
 carboxylic acid), CP 111905 (5-deoxy-5-[[2E)-3-[3-hydroxy-4-(2-propenyloxy)phenyl]-  
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 ((5R,6S)-6-[(1R)-1-hydroxyethyl]-7-oxo-3-[(1R,3S)-tetrahydro-1-oxido-3-thienyl]thio]-  
 4-thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid),\_ritipenam acoxyl ((5R,6R)-3-  
 [[(aminocarbonyl)oxy]methyl]-6-[(1R)-1-hydroxyethyl]-7-oxo-4-thia-1-  
 azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid (acetyloxy)methyl ester), RO-65-5788  
 ((6R,7R)- 7-[[2Z)-(5-amino-1,2,4-thiadiazol-3-yl)(hydroxyimino)acetyl]amino]-3-[(E)-

[(3'R)-1'-[[[(5-methyl-2-oxo-1,3-dioxol-4-yl)methoxy]carbonyl]-2-oxo[1,3'-bipyrrolidin]-3-ylidene]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid monosodium salt), Sch-40832 (N-[[48-[1-[[2,6-dideoxy-3-O-(2,6-dideoxy-D-arabino-hexopyranosyl)-D-arabino-hexopyranosyl]oxy]ethyl]-15-ethylidene-1,3a,4,5,10,11,12,13,14,15,19,20,21,22,28, 29,41,42-octadecahydro-41-hydroxy-12,45-bis(1-hydroxyethyl)-1-(hydroxymethyl)-22-(1-hydroxy-1-methylpropyl)-36-methyl-51,54,57-tris(methylene)-3-(methylthio)-10,13,20,27,38,49,52,55,58-nonaixo-18H,27H-5a,29-(iminoethaniminoethanimino ethaniminoethanimino[7,2]quinolinomethanoxy methano)-9,6:19,16:26,23:33,30-tetranitrilo-16H,33aH-imidazo[1',5':1,6]pyrido [3,2-m][1,11,17,24,4,7,20, 27]tetrathiatetraazacyclotriacontin-1-yl]carbonyl]-2,3-didehydroalanyl-2,3-didehydro-alanine methyl ester stereoisomer), micacocidin A ((OC-6-26-A)-[(4S)-2-[(2S)-2-[(2R,4R)-2-[(4R)-4,5-dihydro-2-[2-(hydroxy-.kappa.O)-6-pentylphenyl]-4-thiazolyl-.kappa.N3]-3-methyl-4-thiazolidinyl-.kappa.N3]-2-(hydroxy-.kappa.O)-1,1-dimethylethyl]-4,5-dihydro-4-methyl-4-thiazolecarboxylato(2-)-.kappa.N3,.kappa.O4]-Zinc), SR-15402 ((1S,5S,8aS,8bR)-1,2,5,6,7,8,8a,8b-octahydro-1-[(1R)-1-hydroxyethyl]-2-oxo-5-[(3S)-3-pyrrolidinylthio]-azeto[2,1-a]isoindole-4-carboxylic acid TOC 39 (1-(2-amino-2-oxoethyl)-4-[[[(1E)-2-[(6R,7R)-7-[[[(2Z)-(2-amino-4-thiazolyl)(hydroxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]ethenyl]thio]-pyridinium inner salt), carumonam ([[(Z)-[2-[(2S,3S)-2-[[[(aminocarbonyl)oxy]methyl]-4-oxo-1-sulfo-3-azetidiny]amino]-1-(2-amino-4-thiazolyl)-2-oxoethylidene]amino]oxy]-acetic acid), Cefozopran (1-[[[(6R,7R)-7-[[[(2Z)-(5-amino-1,2,4-thiadiazol-3-yl)(methoxy imino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-imidazo[1,2-b]pyridazinium inner salt), Cefetamet pivoxil ((6R,7R)-7-[[[(2Z)-(2-amino-4-thiazolyl)(methoxy imino)acetyl]amino]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic

acid (2,2-dimethyl-1-oxopropoxy)methyl ester), and T 3811 (des-F(6)-quinolone).

24. (Previously presented) The method according to claim 22, wherein said antimicrobial agent is selected from the group consisting of imipenen, amikacin, netilmicin, fosfomycin, gentamicin, ceftriaxone, teicoplanin, Ziracin (56-deacetyl-57-demethyl-45-O-de(2-methyl-1-oxopropyl)-12-O-(2,3,6-trideoxy-3-C-methyl-4-O-methyl-3-nitro-alpha-L-arabino-hexopyranosyl)flambamycin), LY333328 (oritavancin), HMR-3647 (3-de[(2,6-dideoxy-3-C-methyl-3-O-methyl-alpha-L-ribo-hexopyranosyl)oxy]-11,12-dideoxy-6-O-methyl-3-oxo-12,11-[oxycarbonyl[[4-[4-(3-pyridinyl)-1H-imidazol-1-yl]butyl]imino]]-erythromycin), Linezolid (N-[[[(5S)-3-[3-fluoro-4-(4-morpholinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide), Synercid (dalfopristin-quinupristin), Aztreonam (2-[[[(Z)-[1-(2-amino-4-thiazolyl)-2-[[[(2S,3S)-2-methyl-4-oxo-1-sulfo-3-azetidiny] amino]-2-oxoethylidene]amino]oxy]-2-methyl-propanoic acid), and Metronidazole (2-methyl-5-nitro-1H-imidazole-1-ethanol).

25. (Previously presented) The method according to claim 17, wherein said subject is selected from the group consisting of a human and an animal.

26. (Original) The method according to claim 25, wherein said subject is a human.

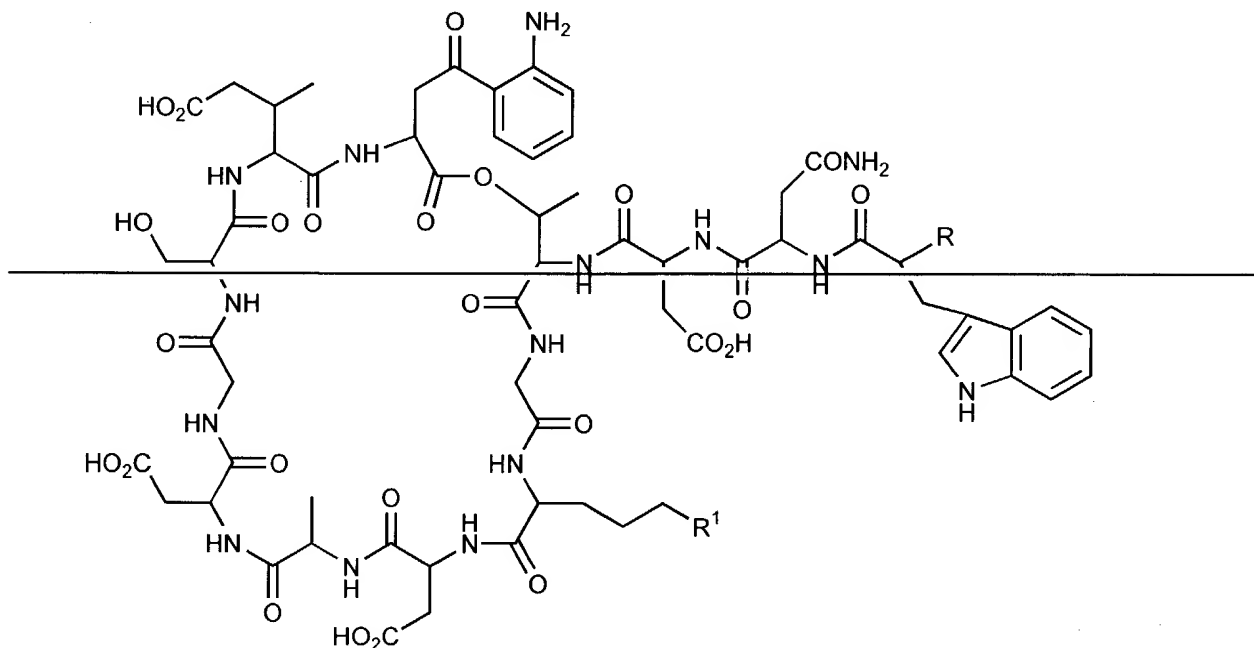
27. (Currently amended) The compound of claim 1 having the formula (II):



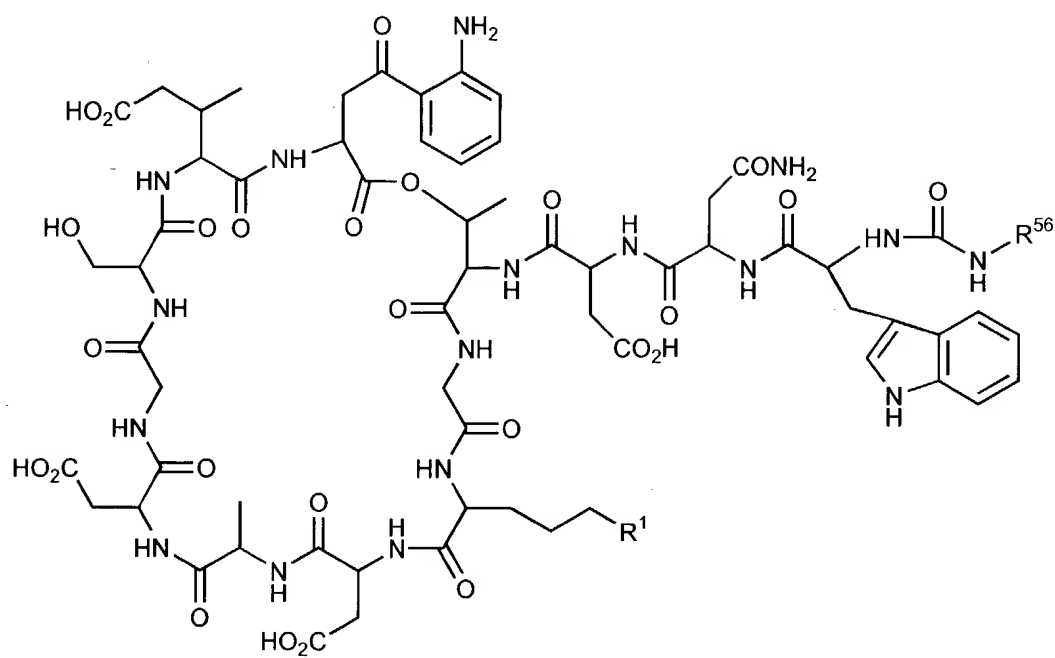
wherein R<sup>56</sup> is an optionally substituted straight-chain C<sub>8</sub>-C<sub>14</sub> alkyl group.

### Claims 28-29 (Canceled)

30. (Currently amended) A method of using the compound according to claim 27 to make a compound according to either of claims 1 or 2 of the formula:



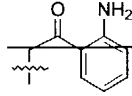
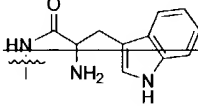
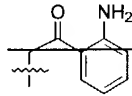
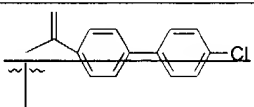
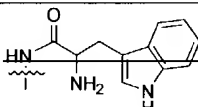
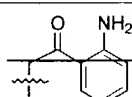
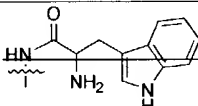
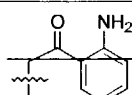
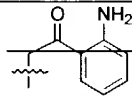
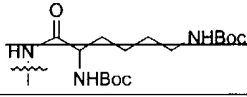
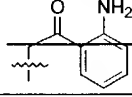
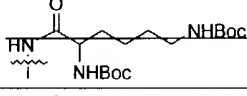
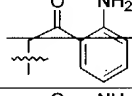
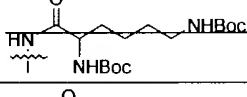
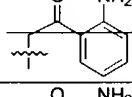
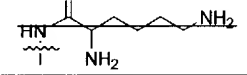
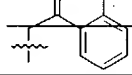
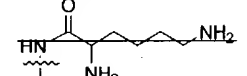
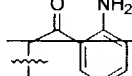
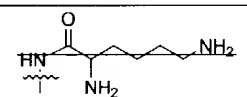
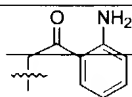
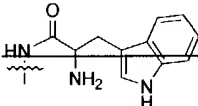
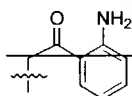
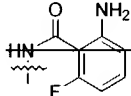
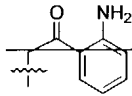


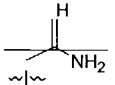
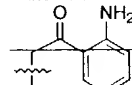
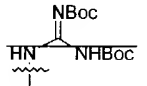
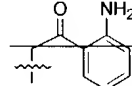
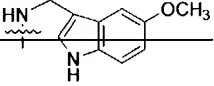
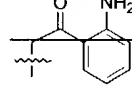
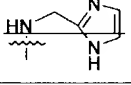
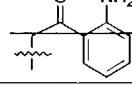
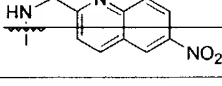
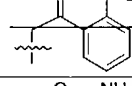
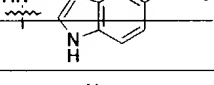
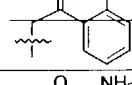
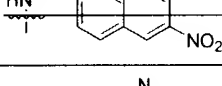
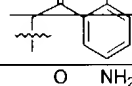
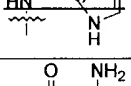
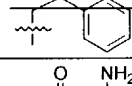
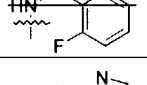
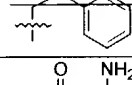
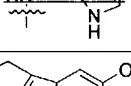
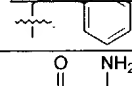
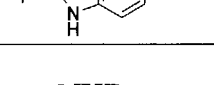
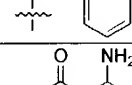
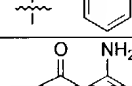
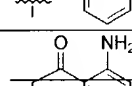
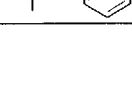


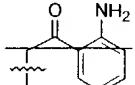
wherein said method comprises treating a compound of claim 27 with a reagent selected from the group consisting of an isocyanates, isothiocyanates, activated esters, acid chlorides, sulfonylchlorides, activated sulfonamides, heterocycles bearing readily displaceable groups, imidates, and lactones; or alternatively, treating a compound of claim 27 reductively with an aldehyde.

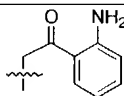
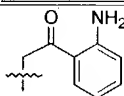
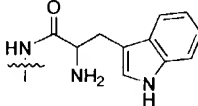
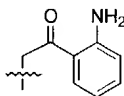
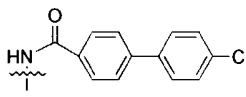
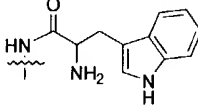
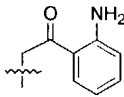
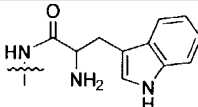
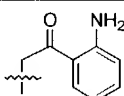
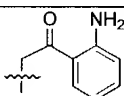
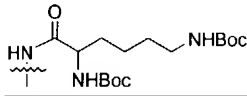
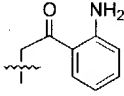
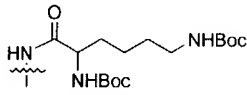
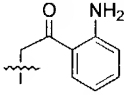
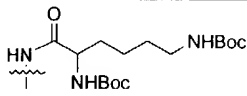
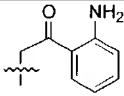
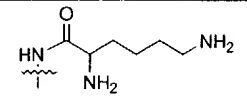
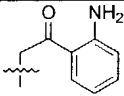
31. (Currently amended) The compound according to either of claims 1 or 2 wherein said compound is selected from

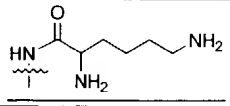
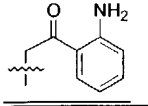
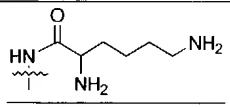
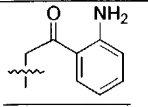
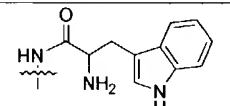
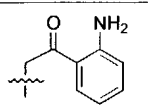
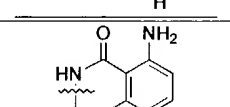
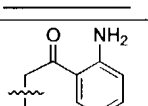
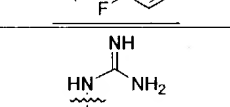
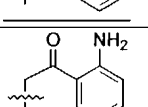
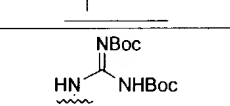
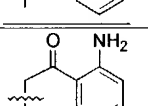
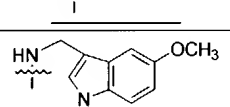
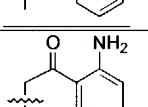
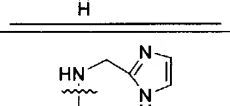
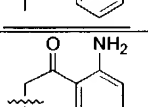
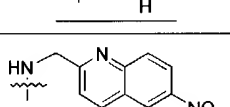
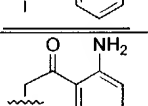
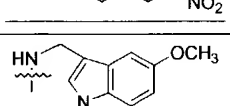
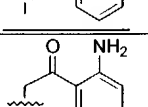
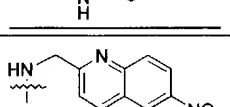
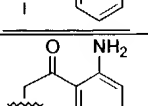
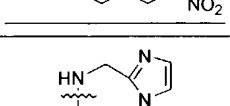
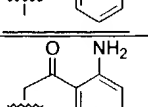
Cpd #	R	R <sup>1</sup>	R <sup>2</sup>
1	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	NH <sub>2</sub>	

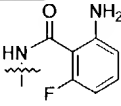
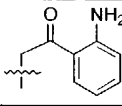
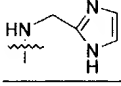
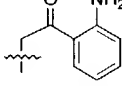
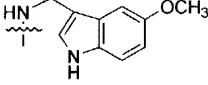
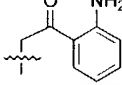
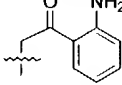
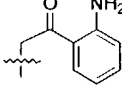
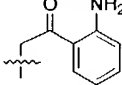
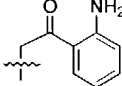
2	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$	$\text{NH}_2$	
3	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
5			
17	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
48	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$	$\text{NH}_2$	
56	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
57	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
58	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
62	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
63	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
64	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
69	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
70	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		

71	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
75	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
76	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
77	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
78	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
87	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
88	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
89	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
108	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
113	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
114	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
117	$\text{NHCONH}(\text{CH}_2)_8\text{CH}_3$	NHBoc	
118	$\text{NHCONH}(\text{CH}_2)_8\text{CH}_3$	$\text{NH}_2$	
119	$\text{NHCONH}(\text{CH}_2)_9\text{CH}_3$	NHBoc	

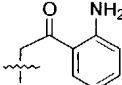
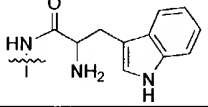
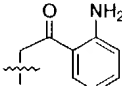
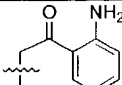
120	$\text{NHCONH}(\text{CH}_2)_9\text{CH}_3$	$\text{NH}_2$	
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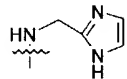
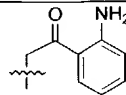
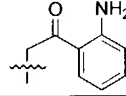
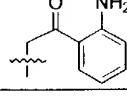
Cpd #	R	R <sup>1</sup>	R <sup>2</sup>
<u>1</u>	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$	$\text{NH}_2$	
<u>2</u>	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$	$\text{NH}_2$	
<u>3</u>	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
<u>5</u>			
<u>17</u>	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
<u>48</u>	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$	$\text{NH}_2$	
<u>56</u>	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		
<u>57</u>	$\text{NHCONH}(\text{CH}_2)_{10}\text{CH}_3$		
<u>58</u>	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
<u>62</u>	$\text{NHCONH}(\text{CH}_2)_7\text{CH}_3$		

<u>63</u>	<u>NHCONH(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub></u>		
<u>64</u>	<u>NHCONH(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub></u>		
<u>69</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>70</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>71</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>75</u>	<u>NHCONH(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub></u>		
<u>76</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>77</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>78</u>	<u>NHCONH(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub></u>		
<u>87</u>	<u>NHCONH(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub></u>		
<u>88</u>	<u>NHCONH(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub></u>		
<u>89</u>	<u>NHCONH(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub></u>		

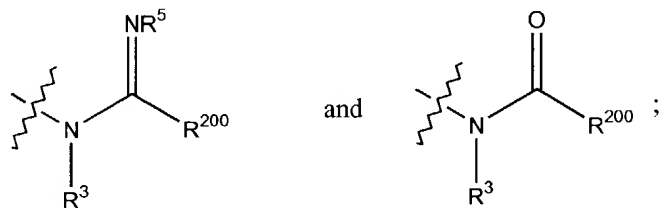
<u>108</u>	<u>NHCONH(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub></u>		
<u>113</u>	<u>NHCONH(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub></u>		
<u>114</u>	<u>NHCONH(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub></u>		
<u>117</u>	<u>NHCONH(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub></u>	<u>NHBoc</u>	
<u>118</u>	<u>NHCONH(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub></u>	<u>NH<sub>2</sub></u>	
<u>119</u>	<u>NHCONH(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub></u>	<u>NHBoc</u>	
<u>120</u>	<u>NHCONH(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub></u>	<u>NH<sub>2</sub></u>	

32. (Previously presented) The compound according to claim 31 wherein said compound is selected from

Cpd #	R	R <sup>1</sup>	R <sup>2</sup>
2	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NH <sub>2</sub>	
3	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>		
48	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NH <sub>2</sub>	

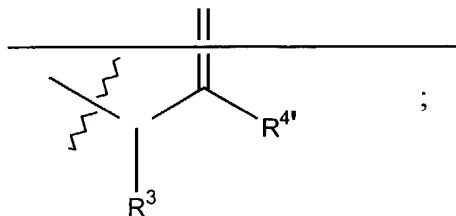
89	$\text{NHCONH}(\text{CH}_2)_{11}\text{CH}_3$		
118	$\text{NHCONH}(\text{CH}_2)_8\text{CH}_3$	$\text{NH}_2$	
120	$\text{NHCONH}(\text{CH}_2)_9\text{CH}_3$	$\text{NH}_2$	

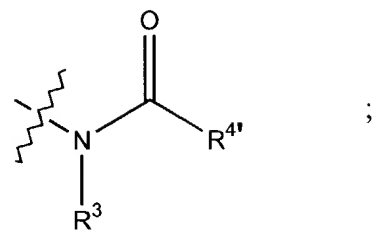
33. (Previously presented) The compound according claim 2, wherein R is selected from the group consisting of:



wherein each of  $\text{R}^3$  and  $\text{R}^5$  is independently selected from the group consisting of hydrido, alkyl, aryl, heterocyclyl and heteroaryl, and wherein  $\text{R}^{200}$  is aryl.

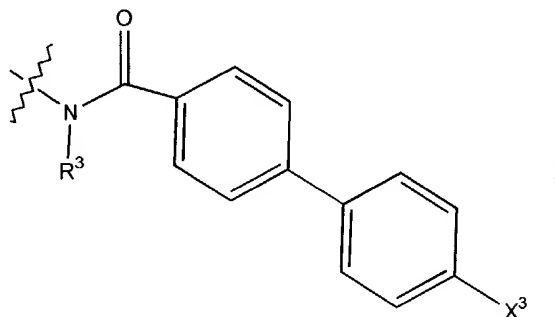
34. (Currently amended) The compound according to claim 33, wherein R is





and wherein R<sup>4'</sup> is a substituted phenyl.

35. (Previously presented) The compound according to claim 34, wherein R is



and wherein X<sup>3</sup> is chloro or trifluoromethyl.

36. (Previously presented) The method according to claim 23, wherein anti-folate agents are sulfonamides or synthetic antibacterials are selected from the group consisting of nitrofurans, methenamine mandelate and methenamine hippurate.